Sea Power 21: Vision to Execution

Delivering FORCEnet

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11 MAR 2003

382,805 Personnel

305 Ships, 199 Deployed

Network Warfare Command

Established JUL 02; 7,000 people globally

Navy's *central operational authority* for Networks and Information Operations

Aligns Navy IT/IO/Space to provide direct operational support to all Fleet Commanders; Information Type Commander to CFFC; Functional Component to USSTRATCOM
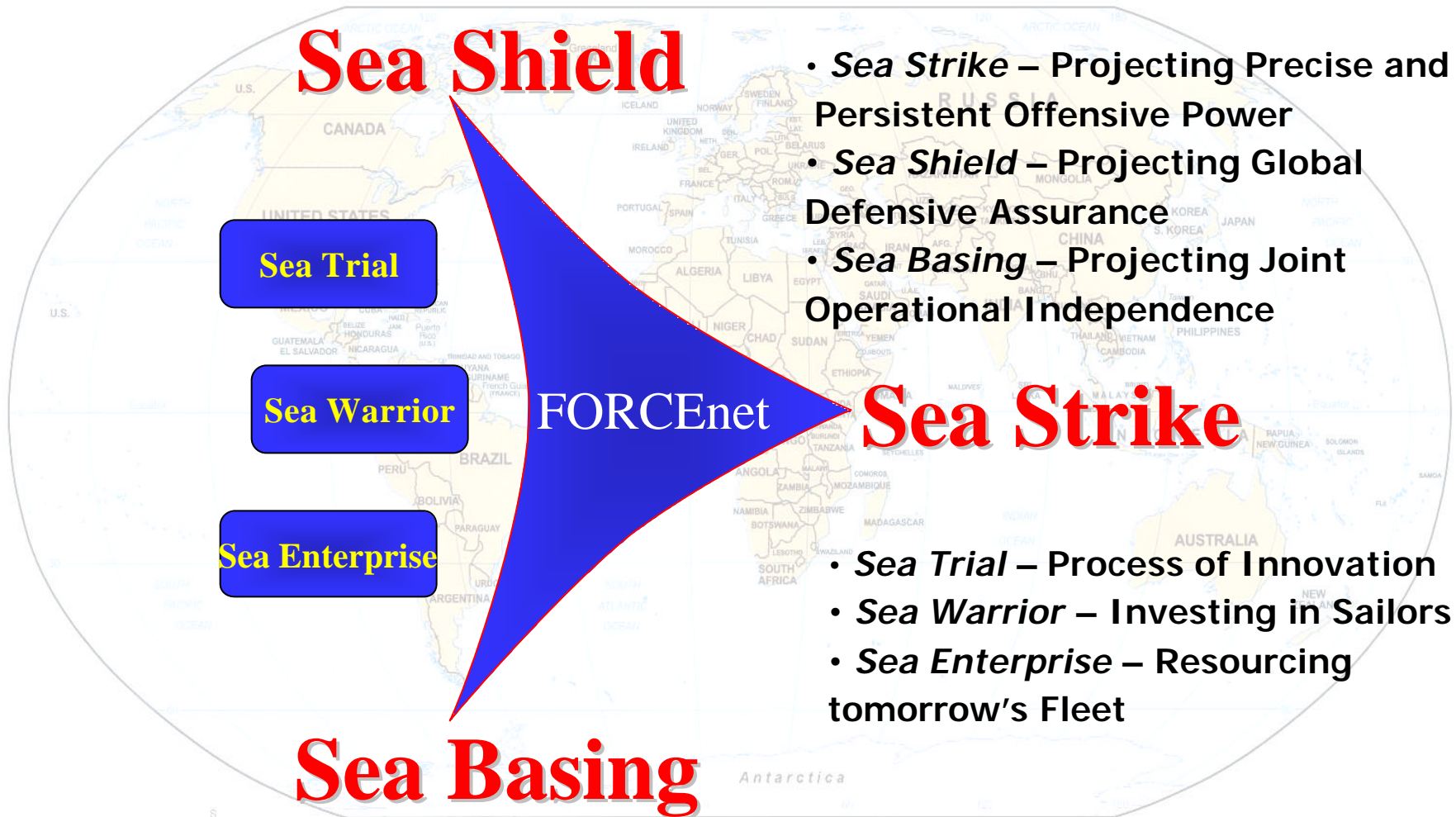
Community Sponsorship – Information Professional Community; IT/IO/Space training, education and professional development

Delivering Capability:

- **Operate secure, global communications, network and space services in support of Naval, Joint and Allied/Coalition warfighters**

- **Develop and deploy IO capability**

- **Build tomorrow's Net – tomorrow's professionals**

Sea Power 21

Sea Shield

Sea Strike

Sea Basing

Sea Trial

Sea Warrior

Sea Enterprise

FORCEnet

- *Sea Strike* – Projecting Precise and Persistent Offensive Power
- *Sea Shield* – Projecting Global Defensive Assurance
- *Sea Basing* – Projecting Joint Operational Independence

- *Sea Trial* – Process of Innovation
- *Sea Warrior* – Investing in Sailors
- *Sea Enterprise* – Resourcing tomorrow's Fleet

Implemented by a Global Concept of Operations

What FORCEnet is

Foundational for Sea Power 21
- operational construct
- architectural framework
- enabling & unifying

Builds upon earlier efforts
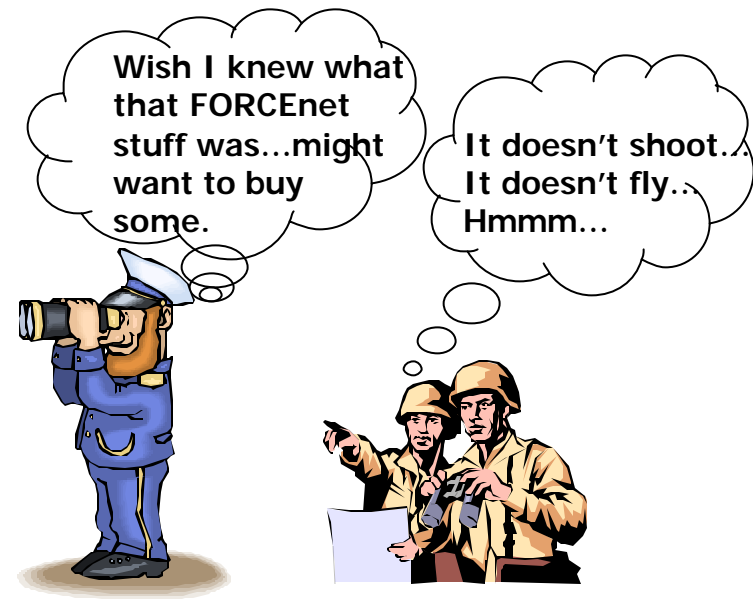… Copernicus, NCW, Taiwan Straits, CEC, SSG

Inherently Joint
Capabilities-based

SEA POWER 21

Sea Shield

Sea Trial

Sea Warrior   ForceNet   Sea Strike

Sea Enterprise

Sea Basing

Wish I knew what that FORCEnet stuff was…might want to buy some.

It doesn't shoot… It doesn't fly… Hmmm…

What it isn't:
- Just the network
- System
- POR

The "FORCE" drives the "net"…

FORCEnet – Turning Information into Power

Achieving FORCEnet

Netting the FORCE for transformational combat capability

Driven by Global CONOPS
- **Attributes**
- **Supporting, Supported**

**Meeting Sea Strike, Sea Shield,
Sea Basing priorities...**
  **Interoperability, COP, TST,
  IO targeting, ISR Data Links**

**Integrated architecture
Top-down systems engineering
In-sync with Joint**
- **TCA, GIG-BE, Teleports, JTRS
JFCOM, STRATCOM**

FORCEnet is hard & technical
- **Standards, protocols, data
  packaging, web services,
  interoperability, security**

**Delivering products via
Spirals baselined in
Innovation and Sea Trial
events (2003)**
- **Giant Shadow
  (FORCEnet LOE 03-2)**
- **FORCEnet Spiral 1 & 2**
- **FBE Kilo IO/CND**
- **FORCEnet ESG LOE/IPD**

**Partnering with Industry
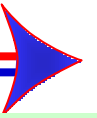...Standards, Best Practices**

**Working first on
...sensors, comms, C2, networking**

Have already started to FORCEnet ... there is no end state

Building FORCEnet Capability

FORCEnet

Netting the FORCE for transformational combat capability

DRIVERS

Naval Transformation Roadmap
Sea Power 21 (Vision)
- Sea Strike
- Sea Shield
- Sea Basing
Naval Power 21 (Strategy)

Naval Operating Concept
- Carrier Strike Groups
- Expeditionary Strike Groups
- SSGN
- Littoral Combatants

DoD & Joint Transformation
- Director, Force Transformation
- JFCOM experimentation
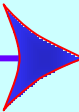- Other Joint initiatives

CAPABILITY

Integrated FORCEnet Capability

Human-centric Integration

Information Weapon
Adaptive...decision aids

Dynamic...survivable networks
Distributed collaborative C2
Expeditionary...sensors

PRODUCTS

Joint & Naval Fires
Task Force Web
Blue Force Tracking
EC5G Transport
IBGWN (wireless)
JTF WARNET
IP over HF

Previous Block plus...
Air NCW enhancements
USW NCW enhancements
EPS (exped sensors)
NGN
IO Toolkit

Previous Block plus...
Remote Sensors
UAV/UUV/UCAV
Enhanced Web Technologies
Human Factor enhancements

Previous Block plus...

| Fn (03) Block 0 | Fn (04) Block I | Fn Block II | ... | Fn Block N |

Operationally proven in war games, simulations, lab and field experiments and exercises

Delivering Operationally Relevant, Enhanced Combat Power

6

"Knowing First, Acting First"

Knowledge management, Information visualization, Human factors -
  the "cognitive" part – the
  FORCE and the Warrior

LCS presents a unique opportunity to demonstrate FORCEnet as a true enabler for Sea Power 21

Information Operations capability and techniques within FORCEnet bring decisive Information Advantage

**Pervasive Knowledge
&
Decisive Action**

Imagine...

Operationally Relevant, Enhanced Combat Power

FORCEnet Alignment

FORCEnet

Netting the FORCE for transformational combat capability

- **Commander Fleet Forces Command (CFFC) established**

- **Realign OPNAV N6/N7 as Director FORCEnet**

- **Stand-up NETWARCOM**

  - Lead TYCOM for Networks and IO
  - FORCEnet Architecture
    Operational View

  - FORCEnet Project Coordinator
  - Plan, coordinate FORCEnet Sea Trial
    experimentation for CFFC

- **Sea Trial - CFFC lead, NWDC**

- **SPAWAR assigned as FORCEnet Technical and Program Assessment Coordinator and Lead Systems Engineer**

- **Navy SYSCOM and PEO realignments, stand-up of PEO (IWS) and PEO (C4I and Space)**

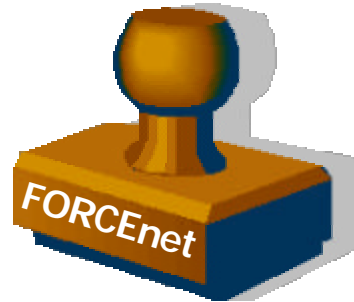- **DoD Requirements and acquisition reform**

Where's the Money?

Netting the FORCE for transformational combat capability

FORCEnet cost and funding (management & process)

PRES BUD ($M) FY04	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
	13.0	15.0	16.0	17.5	19.5	21.5	23.5	113.0

FORCEnet Portfolio (PR05 process)

Traditional N61 Programs   +   FORCEnet   + . . .   FY04-09
$B
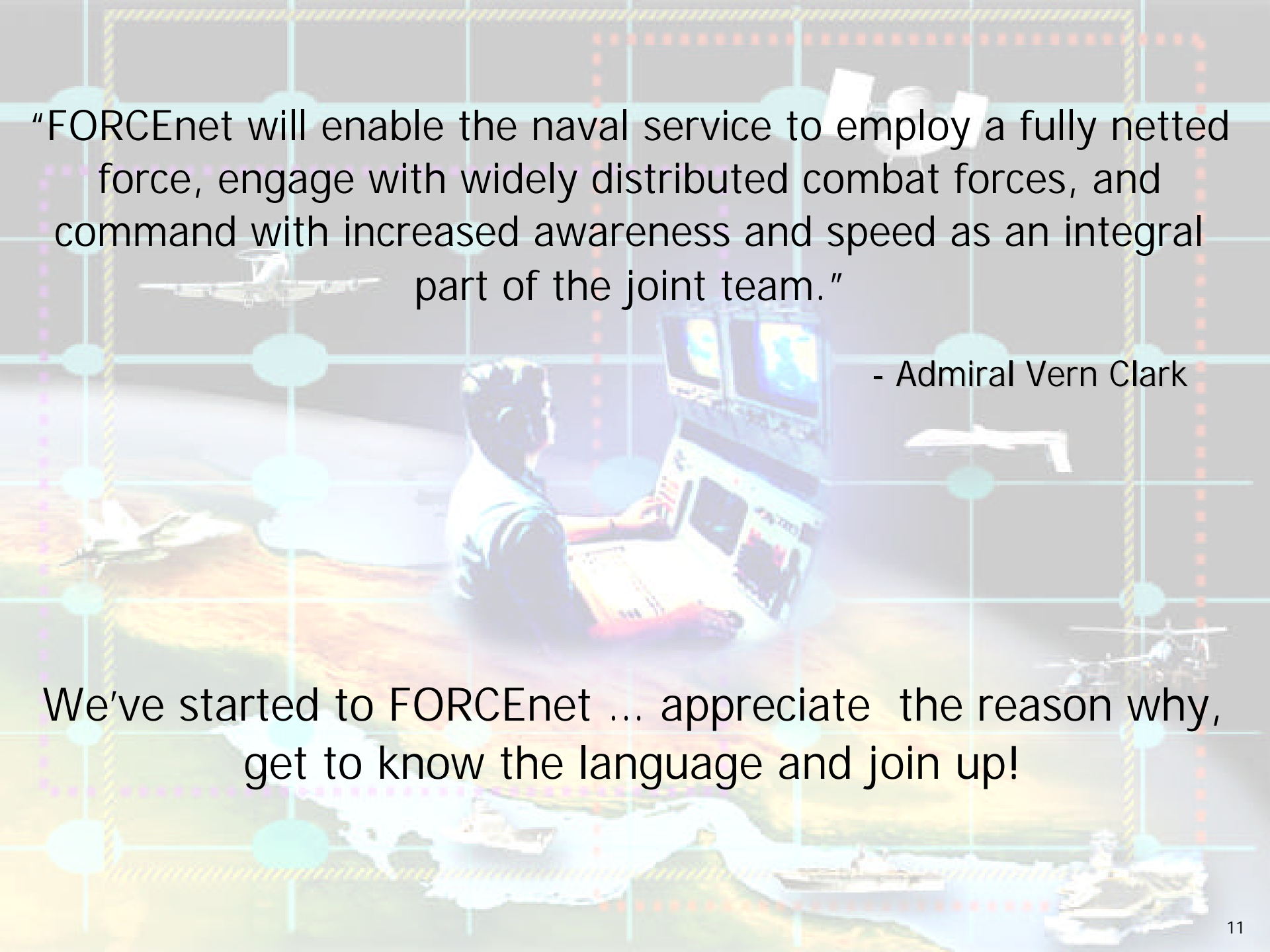
Comms
Networking
Navigation
IO

NFN
JSIPS-N
TES
CUP
SIAP
FIOP

FORCEnet

Netting the FORCE for transformational combat capability

- **FORCEnet is the enabler for Sea Power 21**

- **FORCEnet operations require a highly networked force supported by advances in Information Age capabilities**

- **FORCEnet is about the Human element – 21st Century Warrior**

- **FORCEnet has no end state**

  - **Will evolve as technologies allow**

- **Implementing FORCEnet requires new implementation strategies and spiral development approach**

- **Campaign Plan and architecture**

A Fully Netted FORCE + 21st Century Warrior = FORCEnet

"FORCEnet will enable the naval service to employ a fully netted force, engage with widely distributed combat forces, and command with increased awareness and speed as an integral part of the joint team."

- Admiral Vern Clark

We've started to FORCEnet ... appreciate the reason why, get to know the language and join up!